

REMARKS

The pending Office Action addresses claims 20-40. Claim 35 is withdrawn and claims 20-34 and 36-40 stand rejected. Applicants respectfully request reconsideration in view of the amendments and remarks herein.

Applicants thank Examiner Ramirez for extending the courtesy of a telephone interview on December 29, 2008 to Applicants' representatives. Although no agreement was made during the interview, substantial progress was made in narrowing the issues remaining in prosecution.

Amendments to the Claims

Applicants amend claims 20 and 37. In particular, claim 20 is amended to include the limitations of now-canceled claim 21. Claim 37 is amended to recite that the device, transmitter, and sensor are extracorporeal. Support for these amendments can be found throughout the specification and drawings, for example in paragraphs [0014] and [0043] (describing the transmitter as including electromagnetic coils), paragraph [0051] (describing the device as being externally rested and balanced against the patient), and paragraph [0054] (describing the device, transmitter, and sensor as being positioned outside of the body, over a scalp protrusion). Figures 2A-6B also illustrate the device, transmitter, and sensor as being extracorporeal. No new matter is added.

These amendments are made solely to expedite prosecution, and Applicants reserve the right to pursue claims the same as or similar to those originally presented.

Claim Rejections Pursuant to 35 U.S.C. § 102(b)

Claims 20-29, 32, and 37 are rejected pursuant to 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,432,050 ("Porat"). Applicants respectfully disagree.

Claim 20

Independent claim 20 recites an acoustic monitoring device for verifying the pressure setting of a valve mechanism in an implantable device having a plurality of adjustable valve settings. The acoustic monitoring device includes a transmitter configured to generate an energy field sufficient to effect movement of the valve mechanism of the implantable device and an acoustic sensor

electronically coupled to the transmitter for detecting acoustic signals generated by the valve mechanism during an adjustment cycle. The transmitter includes a plurality of electromagnetic coils for generating an electromagnetic field sufficient to cause movement of the valve mechanism.

Porat fails to teach or even suggest the device of claim 20 because it lacks a transmitter that includes a plurality of electromagnetic coils for generating an electromagnetic field sufficient to cause movement of a valve mechanism. The Porat transducer (114) relied upon by the Examiner to form the claimed transmitter does not include a coil at all, much less a plurality of electromagnetic coils as claimed. Rather, the transducer (114) merely consists of a pair of electrodes (6, 8) separated by a piezoelectric layer (2). *Porat* at FIG. 1a; col. 15, ll. 60-67. There is also no teaching in *Porat* of a transmitter capable of generating an electromagnetic field sufficient to cause movement of a valve, as further required by claim 20. Instead, *Porat* merely uses acoustic waves to impart energy to and communicate with an implanted device. *Porat* at Abstract. These acoustic waves are mechanical, not electromagnetic, and they are used for power transmission and communication, not to cause movement of a valve mechanism as recited in the claim. Accordingly, *Porat* lacks the transmitter of claim 20.

Porat is also deficient with respect to claim 20 because it lacks an acoustic sensor for detecting acoustic signals *generated by a valve mechanism during an adjustment cycle*. First, there is no teaching that *Porat*'s valve (105) has any adjustable settings at all, much less that it emits acoustic signals while being adjusted. Rather, the only acoustic signals in *Porat* are generated by a transducer (114), not a valve as claimed. *See, e.g., Porat* at col. 15, ll. 51-54. Second, even if the *Porat* valve (105) did produce an acoustic signal, the biosensor (100) relied upon by the Examiner to form the claimed sensor would not be capable of detecting it because of the large distance between the valve (105) and the biosensor (100). In other words, the location of the biosensor (100) within the patient's brain would prevent it from detecting subtle noises generated by a valve (105) located several inches away in the patient's neck. *See Porat* at FIG. 11. *Porat* thus lacks an acoustic sensor for detecting acoustic signals generated by a valve mechanism during an adjustment cycle, as further required by claim 20.

Accordingly, claim 20 differentiates over *Porat* and represents allowable subject matter. Claims 21-29 and 32 are allowable at least because they depend from an allowable base claim.

Claim 37

Independent claim 37 recites an acoustic monitoring system for verifying the pressure setting of a valve mechanism in an implantable device having a plurality of adjustable valve settings. The system includes an extracorporeal device for adjusting an opening pressure of the valve mechanism and an extracorporeal transmitter configured to generate an energy field sufficient to cause movement of the valve mechanism. The system also includes an extracorporeal acoustic sensor electrically coupled to the transmitter for detecting acoustic signals generated by the valve mechanism during an adjustment cycle, wherein the transmitter communicates the detected acoustic signal to the device for analysis.

Porat fails to teach or even suggest the system of claim 37 because it lacks an extracorporeal device for adjusting the opening pressure of a valve mechanism. Applicants first note that the Examiner has failed to point out in the office action what element or structure in Porat is relied upon to disclose this limitation of claim 37. Nonetheless, there is simply no discussion or suggestion anywhere in Porat of a valve whose opening pressure can be adjusted, much less of an extracorporeal device capable of performing the adjustment. Instead, Porat merely teaches a valve that can be opened or closed by a processor (113) included in an implanted biosensor (100). *Porat* at FIG. 10; col. 20, ll. 21-26. Simply opening or closing a valve does not teach “adjusting an opening pressure” as recited in claim 37. Likewise, an *implanted* processor cannot be relied on to form the claimed *extracorporeal* device. Accordingly, Porat does not anticipate the system of claim 37.

Porat also lacks an *extracorporeal* transmitter configured to generate an energy field sufficient to cause movement of a valve mechanism and an *extracorporeal* acoustic sensor electrically coupled to the transmitter for detecting acoustic signals generated by a valve mechanism during an adjustment cycle, as further required by claim 37. To the contrary, the biosensor (100) and transducer (114) of Porat relied upon by the Examiner to form these structures are both *implanted within the patient*. *Porat* at FIG. 10; Abstract.

Porat is thus deficient with respect to at least three limitations of claim 37 and therefore the claim distinguishes over Porat and represents allowable subject matter.

Claim Rejections Pursuant to 35 U.S.C. § 103(a)

Dependent claims 30-31, 33-34, 36, and 38-40 are rejected pursuant to 35 U.S.C. § 103(a) as being obvious over Porat in view of U.S. Patent No. 6,533,733 ("Ericson") and in further view of U.S. Patent No. 6,082,367 ("Greeninger"). Each of these secondary references is merely relied on to teach discrete features recited in the dependent claims, and neither reference remedies the deficiencies of Porat discussed above with respect to the independent claims. Claims 30-31, 33-34, 36, and 38-40 are therefore non-obvious and allowable at least because they depend from allowable base claims.

Conclusion

Applicants submit that all claims are in condition for allowance, and allowance thereof is respectfully requested. Applicants' amendment of the claims does not constitute a concession that the claims are not allowable in their unamended form. The Examiner is encouraged to telephone the undersigned attorney for Applicants if such communication is deemed to expedite prosecution of this application.

Respectfully submitted,

Date: December 30, 2008

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